

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Application No.: 09/874,355
Attorney Docket No.: Q64810

Disclaimer simply serves the statutory function of removing the rejection of double patenting and raises neither presumption nor estoppel on the merits of the rejection. It is submitted that obviation of the double patenting rejection by submission of a Terminal Disclaimer should not be construed as an admission or acquiescence or estoppel on the merits.

35 U.S.C. § 102:

Claims 1, 2, 9-11, 18, 19, 29, 30, 32, 33, 44 and 45 are rejected under 35 U.S.C. § 102(e) as being anticipated by Wang et al. (U.S. Pub. No. US 2003/0191368 [hereinafter "Wang"]).

The Examiner generally asserts that Wang et al. disclose "assigning one of color and brightness to the reflected image and forming an overlaid (inherently matching the number of pixels) fluorescence and reflectance image. The images are formed separately." (See Office Action, page 3.) As noted below, Applicant requests an interview to discuss the below noted remarks.

An exemplary aspect of the invention is directed to imaging a patient's tissue to determine if a disease is present. For example, claim 1 recites *an operation for assigning at least one of color data and brightness data to a computed-image based on a fluorescent-light image, so as to form a tissue-state image representing mainly the state of the tissue in the target area.* Claim 1 also recites, *assigning to the fluorescent-light image at least one of color data and brightness data, corresponding to the at least one of color data and brightness data assigned to said tissue-state image, so as to form a tissue-form image representing mainly the form of the tissue in the target area.* Claim 1 also describes *to combine the tissue-state image and the tissue-form image to form a composite image.*

Wang discloses an image overlay for overlaying a fluorescent-light image on a white light image. The color of the overlay image in Wang is a mixed color of the fluorescent-light image and the white light image, thus, the color of the overlap image does not accurately reflect a tissue state. Wang *does not* disclose obtaining a tissue state image and a tissue form image separately, as recited in independent claims 1, 9, 18 and 32 to define that the tissue-state image and the tissue-formed image are obtained separately. The disclosure in Wang of overlaying a

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fluorescent-light image on a white light image, does not teach the claimed features regarding the *separately obtained image* of the tissue state and the tissue form.

Moreover, in regard to claims 1, 2, 18, 19, 29 and 30, Applicant submits that Wang discloses a method for representing a tissue-state in color by using only a fluorescent light image and representing the range (tissue-form) of the tissue state by contour lines (paragraph [0075]). However, Wang fails to teach or suggest obtainment of a tissue-state image and a tissue form image.

Further, the white light image in Wang is not an image produced by *controlling assignment* of the color information and the information to the image so that the image represents the tissue-form. Therefore, if the invention of Wang were modified so that a synthesized image is produced by combining the white light image and the fluorescent light image, the color of the white light image and that of the fluorescent light image would be mixed, and it would be impossible to represent the tissue-state accurately. In other words, Wang fails to teach or suggest controlling assignment of the color information and the brightness information to each of the images. In an exemplary embodiment of the present invention, assignment of the color information and the brightness information to each of two images is controlled so that one image represents the tissue-state and the other image represents the tissue-form. This feature is recited in claim 1 as follows: "at least one of color data and brightness data corresponding to the at least one of color data and the brightness data assigned to said tissue-state image".

Further, Wang discloses detection of blue fluorescence, which represents the tissue-state, and red fluorescence, which represents the tissue-form (paragraph [0105]). However, such disclosure fails to teach or suggest a method for assigning the color information and the brightness information to the detected fluorescent light image. In other words, Wang does not teach or suggest controlling assignment of the color information and the brightness information to each of the images so that one image represents the tissue-state and the other image represents the tissue form.

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Also, regarding Claims 9 through 11, 32, 33, 44 and 45, Wang discloses obtainment of a reflected image at paragraphs [0128] and [0129]. However, Wang fails to teach or suggest controlling assignment of the color information and the brightness information to each of the fluorescent light operation image and the reflected image so that the fluorescent light operation image represents the tissue-state and the reflected image represents the tissue-form. Further, Wang fails to teach or suggest production of a synthesized image by combining the two images.

Accordingly, Wang does not disclose each feature recited in claims 1, 9, 18 and 32 such that the rejection thereof under 35 U.S.C. § 102(e) should be withdrawn. The rejection of dependent claims 2, 10, 11, 19, 29, 33, 44 and 45 should also be withdrawn at least by virtue of these claims respectively depending upon independent claims 1, 9, 18 and 32.

35 U.S.C. § 103:

Claims 3-6, 12-15, 20-23, 25, 26, 35-38, 40 and 41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Kaneko (U.S. Pat. No. 6,422,994).

Kaneko is cited for allegedly disclosing to assign display gradation based on maximum value and frequency (histogram) of the brightness levels of the image signals to indicate a normal or non-normal tissue (see col. 17, lines 3-20 of Kaneko). Applicant submits that Kaneko fails to make up for the deficient teachings of Wang and Tsujita, such that the rejection of the dependent claims should be withdrawn at least by virtue of these claims respectively depending from independent claims 1, 9, 18 and 32.

Claims 7, 16, 27 and 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Kaneko and further in view of Zeng et al. (U.S. Patent No. 5,647,368).

Claims 31 and 46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Kaneko and further in view of Hayashi et al. (U.S. Patent No. 6,433,345).

Applicant submits that the additional application of Zeng et al. and Hayashi et al. fails to supplement and make obvious the deficient teachings of Wang, Kaneko and Imaizumi in regard to independent claims 1, 9, 18 and 32. Thus, claims 7, 16, 27, 31, 42 and 46 are submitted as

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patentable over the applied references at least by virtue of their respective dependences on the independent claims.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited.

INTERVIEW REQUEST

Applicant desires an interview to discuss the above-noted issues. The Examiner is kindly requested to contact the undersigned at the telephone number listed below to schedule the interview. Alternatively, Applicant will be in contact with the Examiner to schedule the interview.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

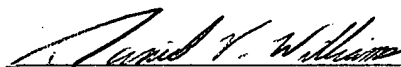
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